

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Application No.: 10/509,855
Attorney Docket No.: Q69582

REMARKS

The Office Action of November 23, 2005 has been received and its contents carefully considered.

Claims 1 to 22 are all the claims pending in the application, prior to the present amendment.

Claims 7, 9, 10, 17 and 19-22 have been rejected under the second paragraph of 35 U.S.C. § 112 as indefinite.

The Examiner sets forth eight separate reasons for this rejection.

Applicant has amended the claims as set forth above to address the issues raised by the Examiner.

(a) With respect to the rejections of claims 17, 19, 20, 21 and 22, applicant believes the above amendments are, in general, self-explanatory.

With respect to claim 20 and the Examiner's comment that claim 20 does not mention how the bonding is accomplished, applicant submits that there is no requirement that claim 20 specify how the bonding is accomplished. The Examiner has failed to advance any reason why the absence of how the bonding is accomplished renders claim 20 as indefinite. A method claim is not required to provide the details of each step that can be employed in the process.

(b) With respect to the rejection of claims 7 and 9, applicant has canceled these claims.

(c) With respect to the Examiner's proposal to cancel claim 10, applicant has amended claim 1 to clarify that claim 1 permits the presence of other bonding metals in addition

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to nickel-phosphorous by amending claim 1 to delete the word “composed” and replace it with the word “comprised”, which is open language that permits the presence of additional bonding metals in addition to nickel-phosphorus. Further, applicant points out that nickel as recited in claim 10 is different from the nickel-phosphorus recited in claim 1. Thus, in accordance with claim 10, the bonding metal can contain both nickel and nickel-phosphorus, with the nickel being different than the nickel-phosphorus.

In view of the above, applicant submits that the claims that are in application comply with the requirements of the second paragraph of 35 U.S.C. § 112 and, accordingly, requests withdrawal of this rejection.

Claims 1-16 and 19-20 have been rejected under 35 U.S.C. § 103(a) as obvious over Slutz et al in view of the newly cited Grotepass et al patent.

Applicant submits that Slutz et al and Grotepass et al do not disclose or suggest the subject matter of the present claims and, accordingly, requests withdrawal of this rejection.

The present invention as set forth in claim 1 as amended above is directed to a metal-coated abrasive comprising a bonding metal comprised of nickel-phosphorous and plural abrasive grains bonded by the bonding metal, wherein surfaces of individual abrasive grains are directly coated with a metal layer, consisting of cobalt-phosphorous.

Thus, applicant has amended claim 1 to incorporate the recitations of claim 2 and to state that the coating metal layer consists of cobalt-phosphorous.

Neither Slutz et al nor Grotepass et al disclose or suggest the use of cobalt-phosphorous as a coating metal layer.

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It is noted that the metal-coated abrasive of the present invention is a multi-grain abrasive which can be made by coating individual abrasive grains with a coating metal in an electro-plating or non-electro-plating bath while vigorously stirring the bath, and thereafter, bonding together a plurality of abrasive grains, after they are coated with the coating metal, by a bonding metal in an electro-plating or non-electro-plating bath while stirring gently to form a metal bonded abrasive grain.

The multi-grain abrasive of the present invention can be used in various types of grinding wheels, such as a resinoid wheel, which exhibit good grindability and long life.

In view of the above, applicant submits that Slutz et al and Grotepass et al do not disclose or suggest the subject matter of the present claims and, accordingly, request withdrawal of this rejection.

Claim 17 has been rejected under 35 U.S.C. § 103(a) as obvious over Slutz et al in view of Grotepass alone, or further in view of Conradi.

The Examiner relies on Conradi et al for teaching the amount of abrasive to be employed in a metal bonded abrasive.

Claim 17 depends from claim 1. Accordingly, applicant submits that claim 17 is patentable for the same reasons as discussed above in connection with claim 1.

In view of the above, applicant submits that Slutz et al, Grotepass et al and Conradi et al do not disclose or suggest the subject matter of the present claims and, accordingly, requests withdrawal of this rejection.

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Claims 18 and 21 have been rejected under 35 U.S.C. § 103(a) as obvious over Slutz in view of EP 786506.

Claims 18 and 21 are dependent claims. Accordingly, applicant submits that claims 18 and 21 are patentable because they depend from claim 1 which is patentable for the reasons discussed above in connection with claim 1.

In view of the above, applicant submits that Slutz et al and EP '506 do not disclose or suggest the subject matter of the present claims and, accordingly, requests withdrawal of this rejection.

Claim 22 has been rejected under 35 U.S.C. § 103(a) as obvious over Slutz et al in view of EP '506 and further in view of Roy.

Claim 22 depends from claim 1. Accordingly, applicant submits that claim 22 is patentable because it depends from claim 1 which is patentable for the reasons discussed above in connection with claim 1.

Further, the Examiner interprets claim 21 as being a simultaneous process of coating and bonding, and being different from a multi-step process as disclosed in Slutz et al.

Applicant disagrees with the Examiner that claim 22 is directed to a simultaneous process.

Claim 22 is reciting a multi-step process in which individual grains are coated with the coating metal, and then the coated grains are bonded with the bonding metal.

In order to further make this clear, applicant has amended claim 22 by inserting the word "thereafter" before the word "bonding".

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In view of the above, applicant submits that Slutz et al, EP '506 and Roy do not disclose or suggest the subject matter of the present claims and, accordingly, requests withdrawal of this rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

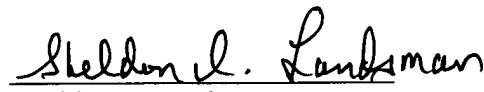
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